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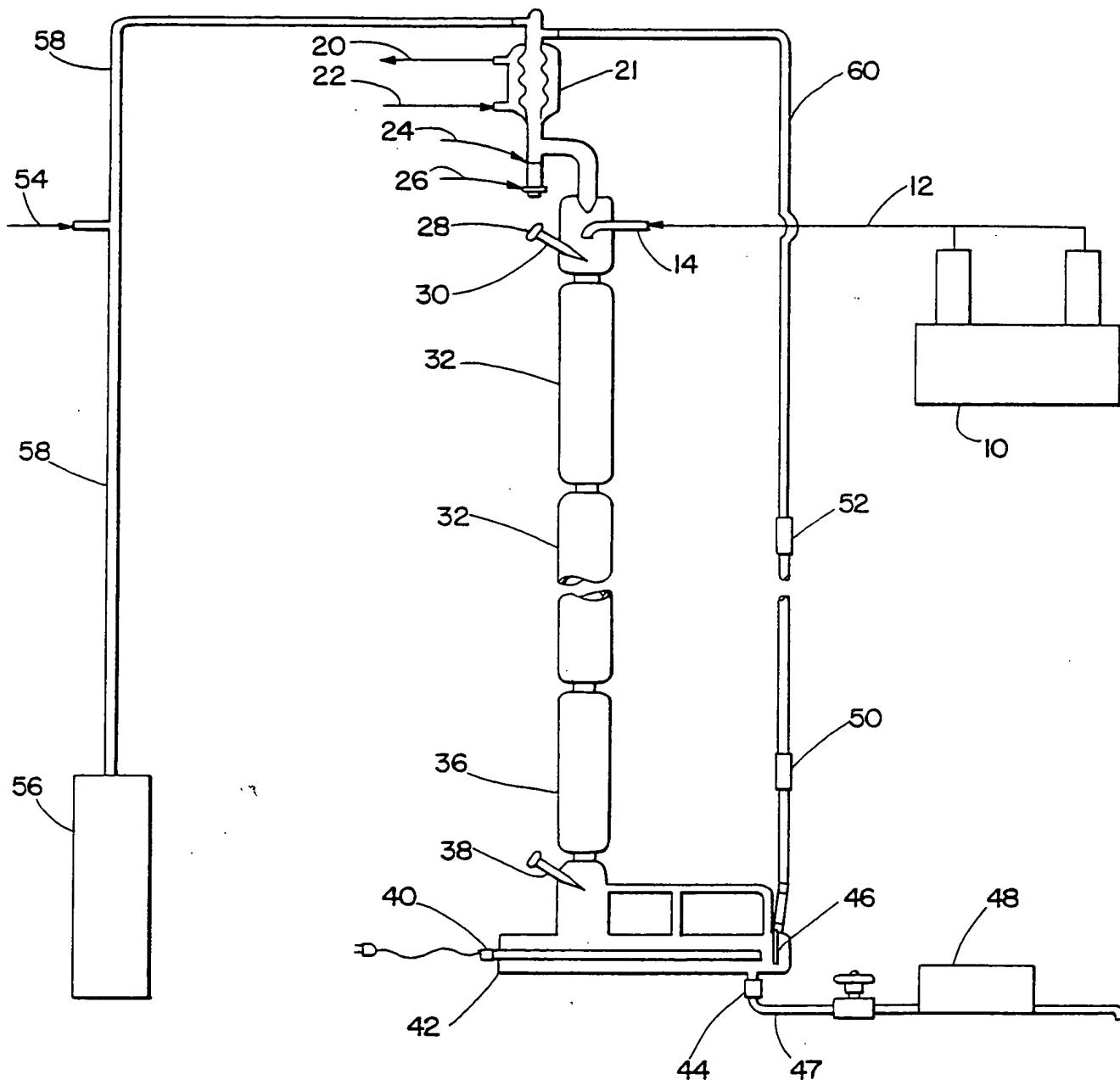
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*Fig. 1*

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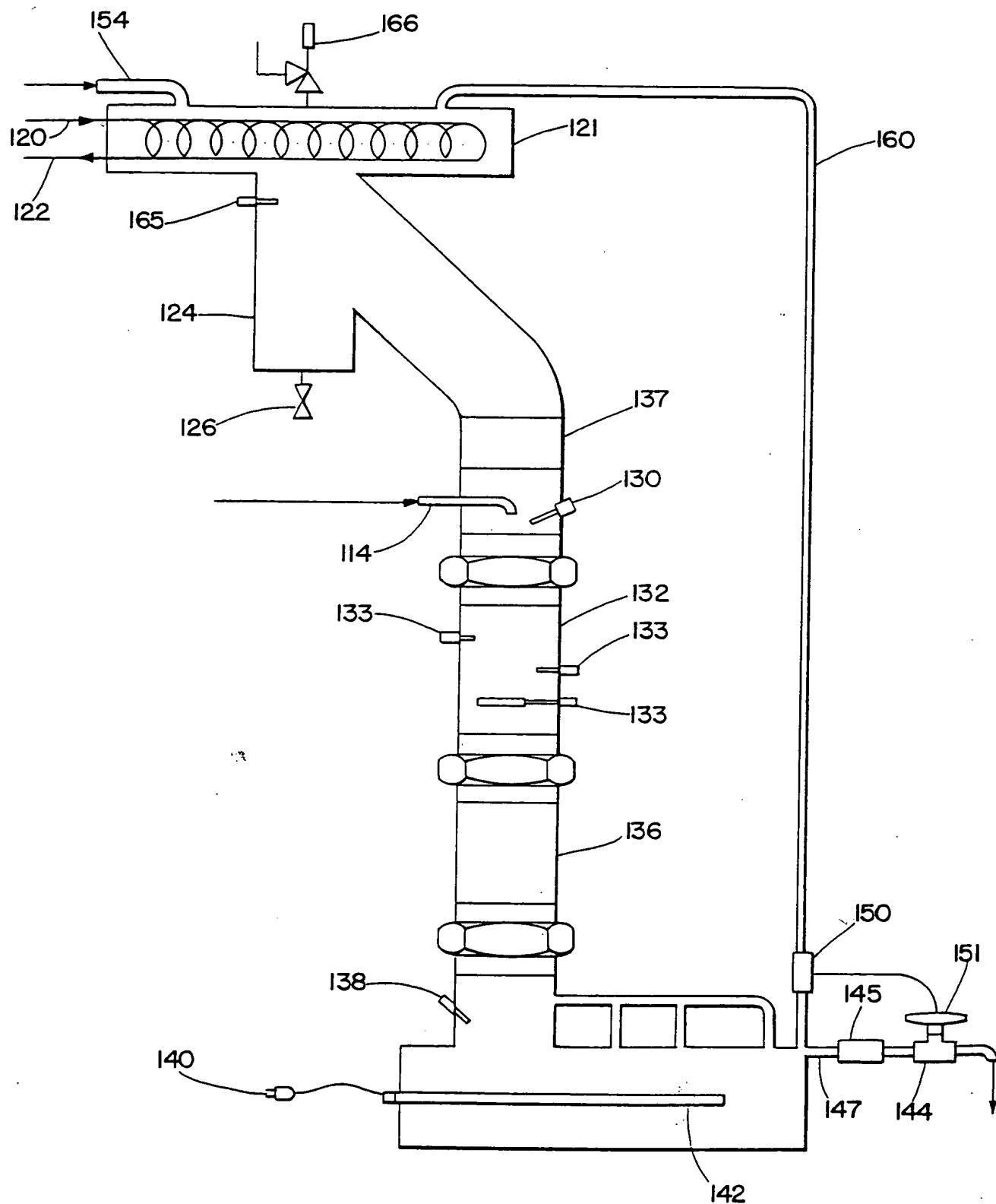


Fig. 2

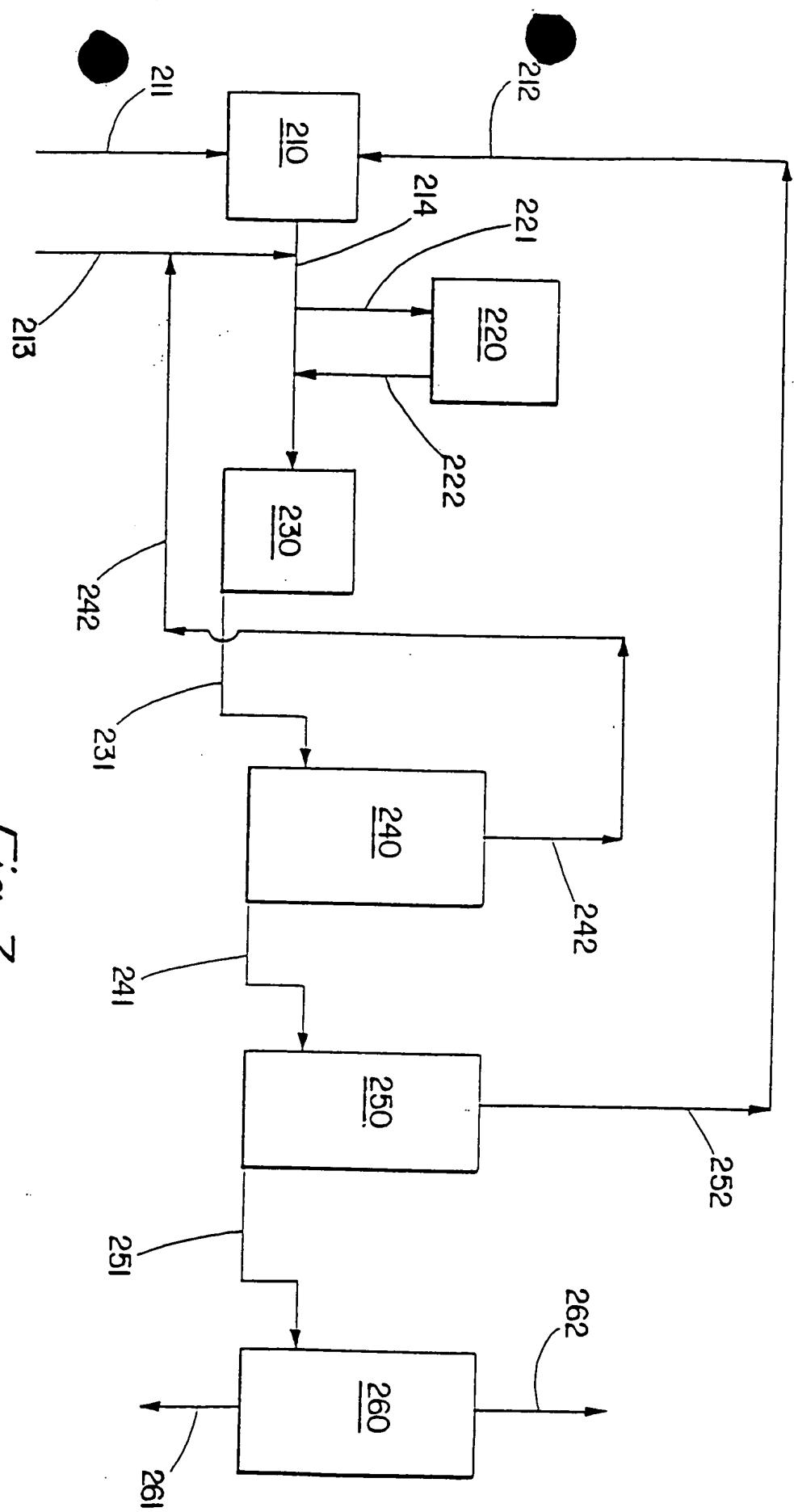


Fig. 3

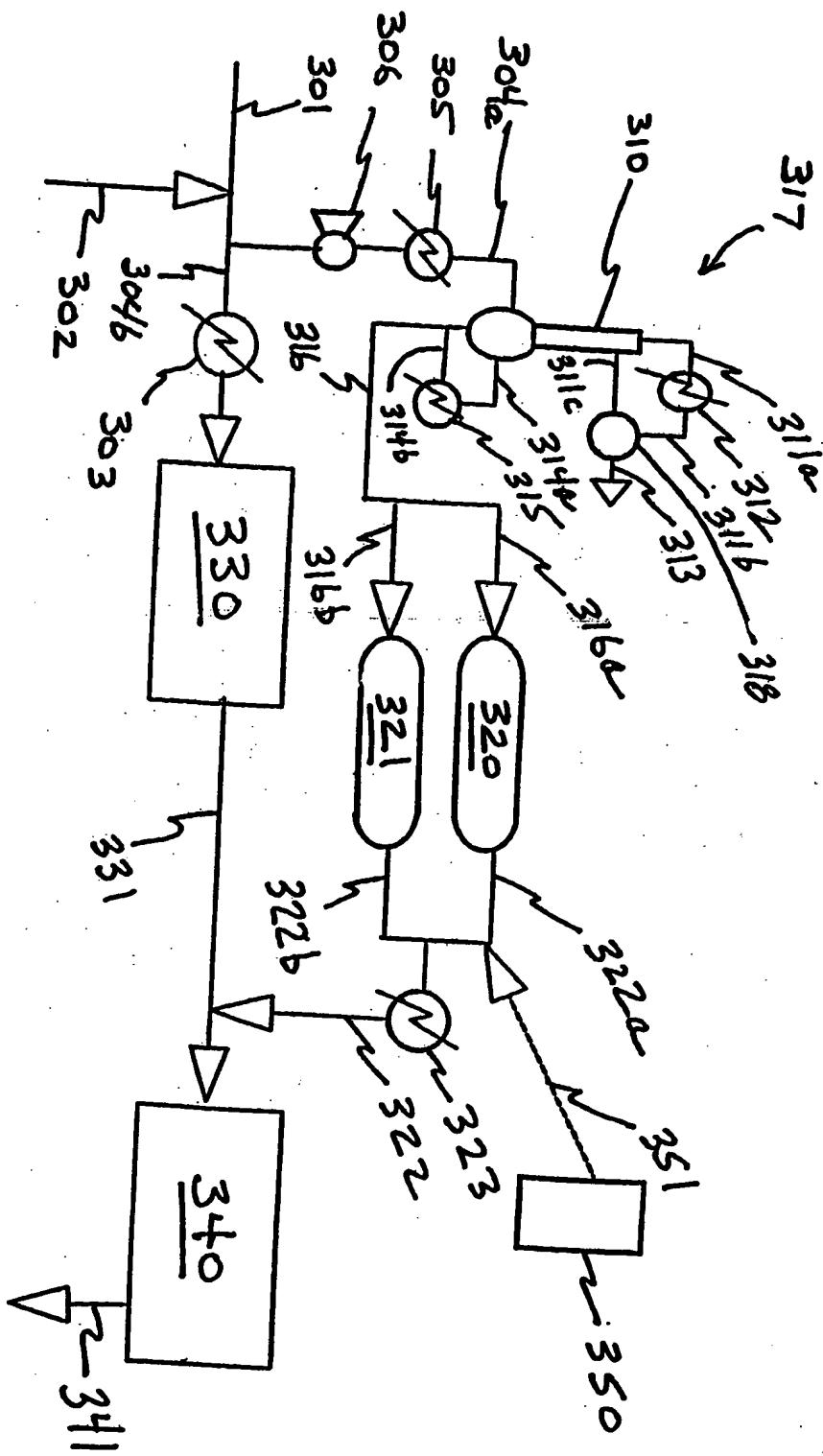


FIG. 4

**FIGURE 5. 2-PHENYL ISOMER DISTRIBUTION DETERGENCY STUDY**

2-PHENYL		REDEPOSITION		DIRTY MOTOR OIL		DUST SEBUM		GRASS		BLOOD, MILK, SOIL		EMPA 101&104		CLAY	
		cotton	poly/cotton	cotton	poly/cotton	cotton	poly/cotton	cotton	poly/cotton	cotton	poly/cotton	cotton	poly/cotton	cotton	poly/cotton
14.20	-3.96	-12.77	21.36	-2.52	3.64	-6.16	-1.17	-1.77	2.57	6.95	7.07	11.57	9.27	8.70	
26.20	-3.61	-12.88	23.07	-0.51	4.05	-6.08	-0.63	-1.77	2.21	6.06	7.17	12.58	9.76	9.05	
38.20	-4.22	-10.51	22.86	1.90	4.38	-6.79	-1.10	-1.55	2.83	6.95	8.76	13.40	9.25	9.30	
50.20	-3.40	-9.23	20.91	1.57	4.94	-4.48	-0.88	-1.66	3.27	6.70	9.11	16.56	10.08	9.74	
62.20	-3.80	-8.51	22.89	3.01	4.27	-3.95	-1.21	-1.69	2.72	7.48	10.86	19.10	9.17	10.50	
74.30	-3.92	-7.78	22.49	3.33	4.88	-3.30	-1.55	-1.70	3.52	8.48	11.11	18.00	10.50	10.81	

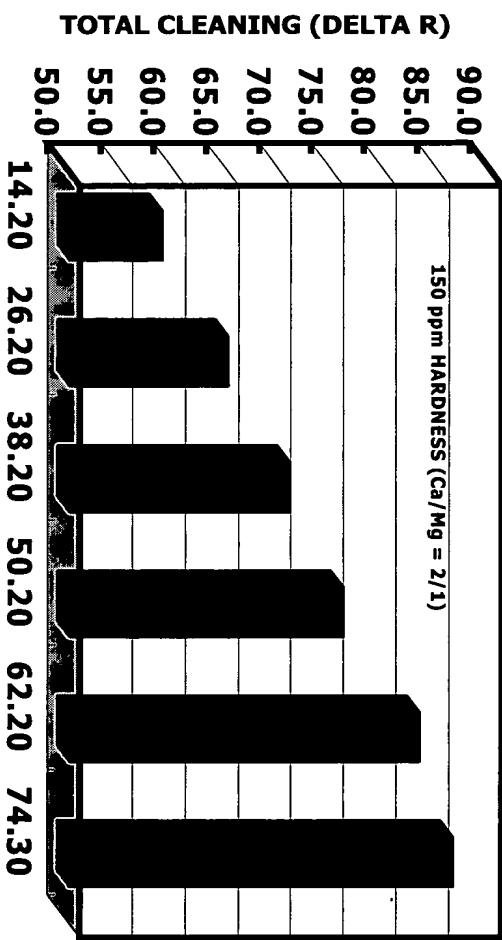
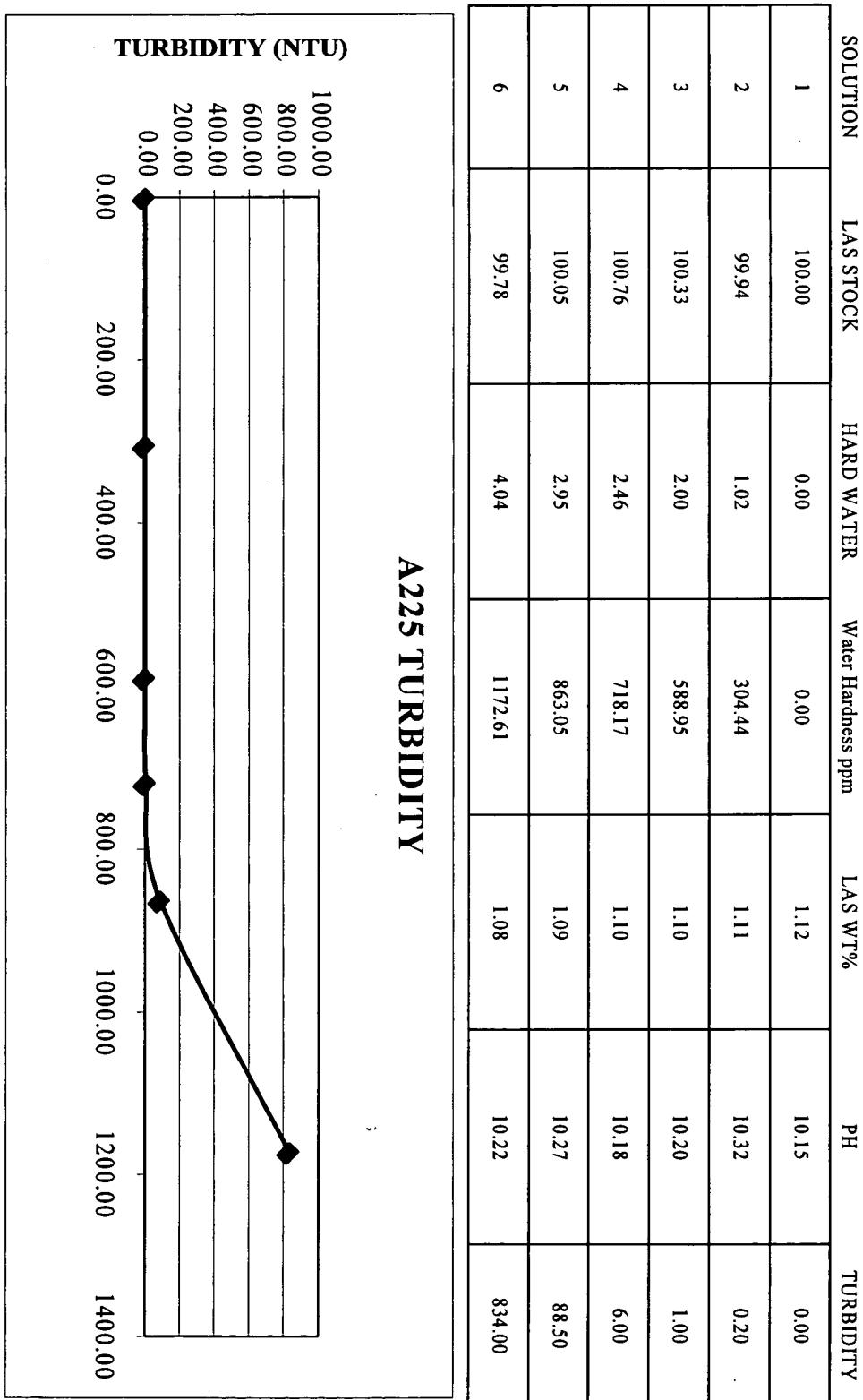


FIGURE 6. Conventional LAS (A225) HARD WATER TURBIDITY



## FIGURE 7. Super High 2-phenyl LAS HARD WATER TURBIDITY

SOLUTION	LAS STOCK	HARD WATER	Water Hardness ppm	LAS WT%	pH	TURBIDITY
1	101.70	0.00	0.00	1.13	9.71	0.60
2	101.36	1.05	308.96	1.12	9.92	0.30
3	101.00	3.01	872.06	1.10	9.55	1.30
4	101.79	4.01	1142.12	1.09	9.97	4.70
5	100.30	5.17	1477.12	1.07	9.90	30.00
6	102.89	7.04	1929.79	1.06	9.84	305.00
7	93.42	8.00	2376.95	1.04	9.64	1098.00
6	100.83	9.15	2507.04	1.04	9.79	850.00

### SUPER HIGH 2-PHENYL TURBIDITY

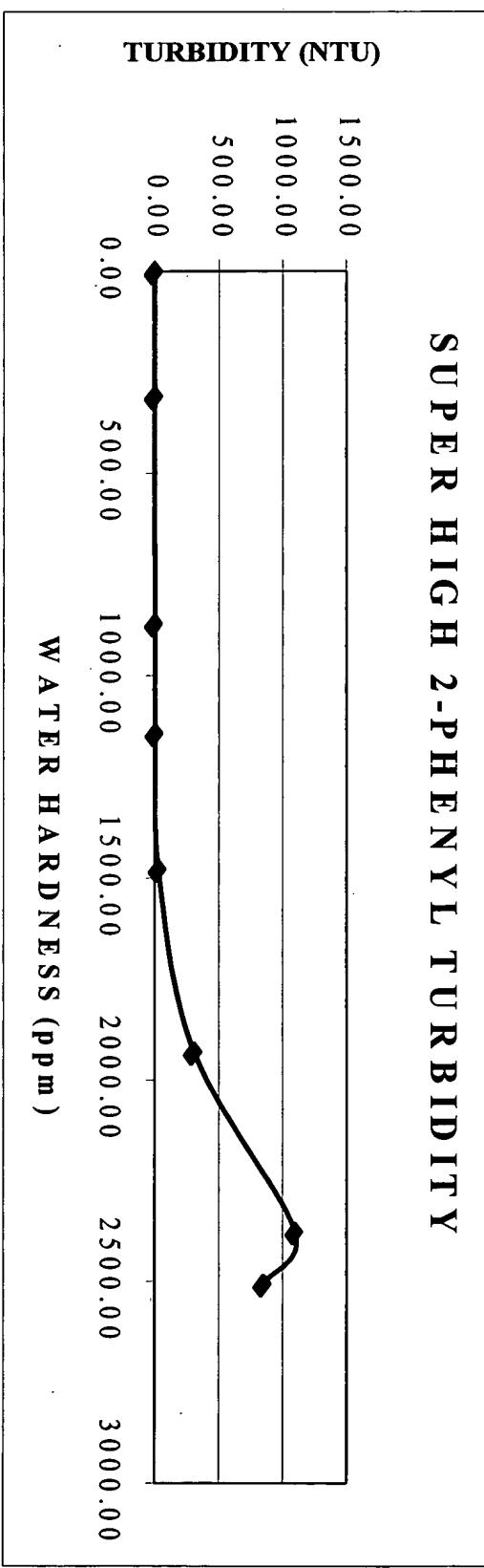
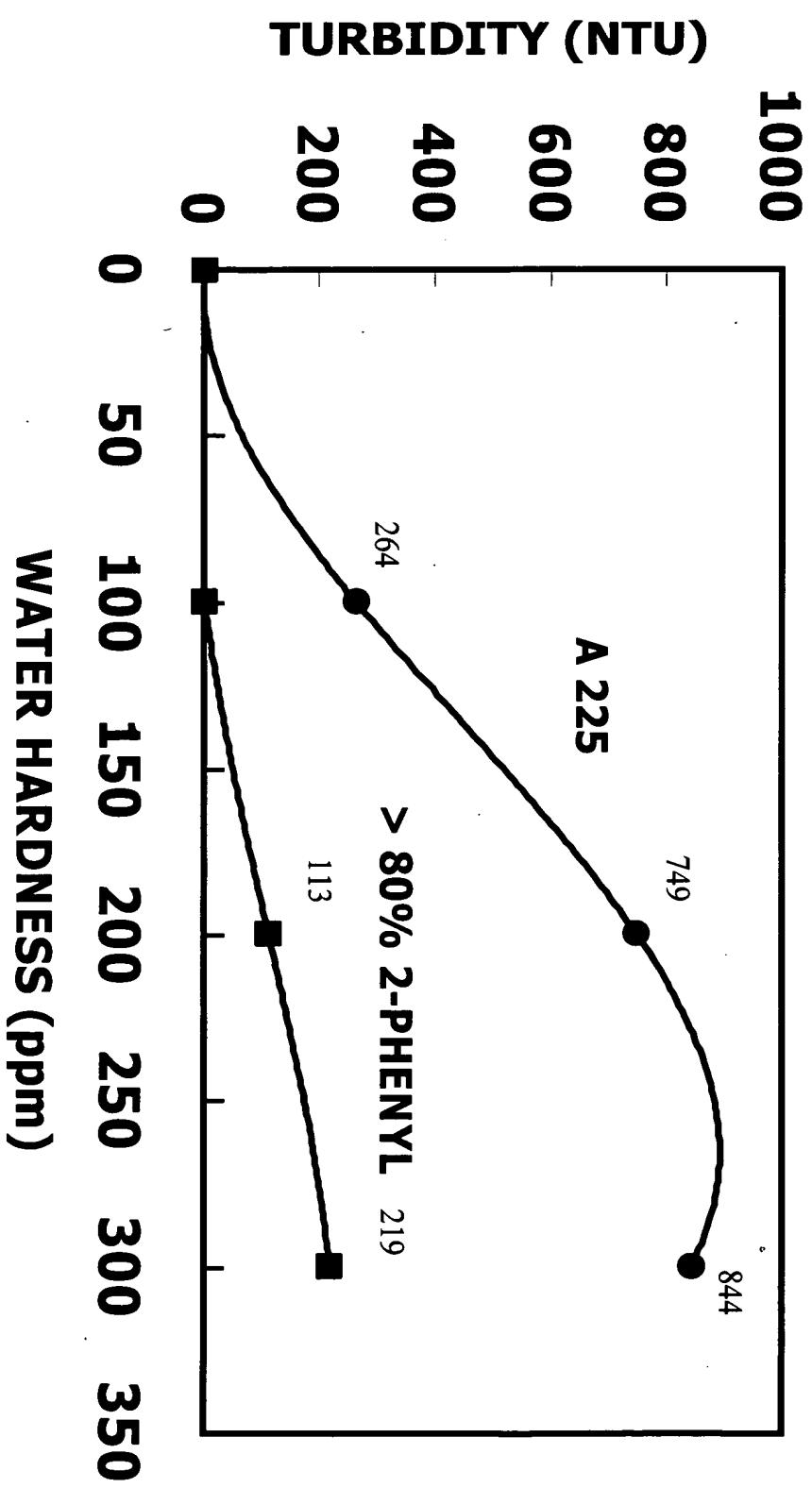


FIGURE 8. Hard water tolerance comparison of Super High 2-phenyl sodium-LAS versus conventional sodium-LAS at 25°C.

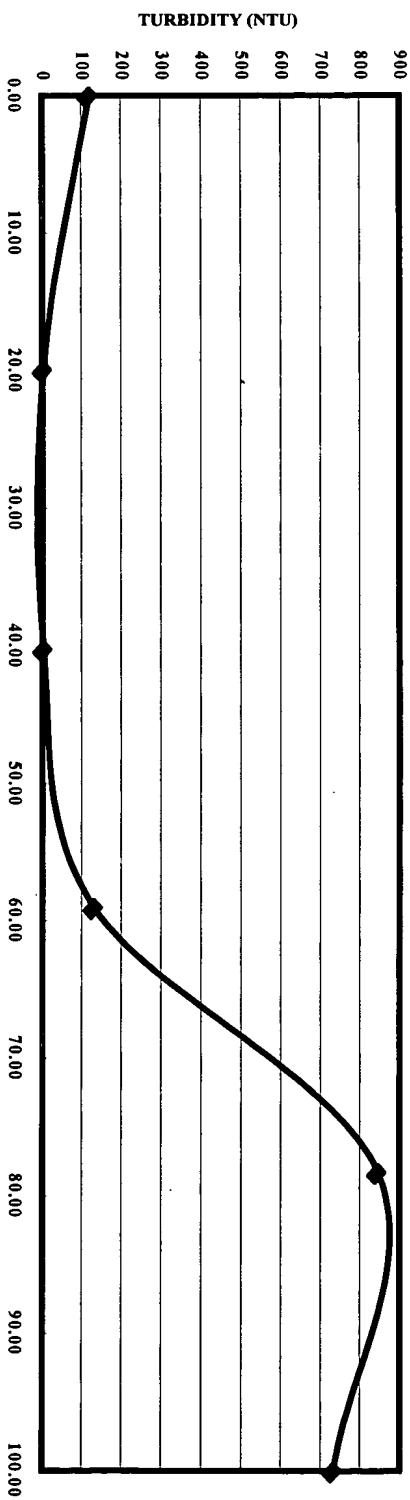


**FIGURE 9. Turbidity study comparing of Super High 2-phenyl sodium-LAS ("SLAS") versus Super High 2-tolyl sodium-LAS ("SLATS") at 25°C.**

SAMPLE	GMS SLATS (8053-8)	GMS SLAS (7961-97-2)	GMS HARD WATER	GMS DI WATER	HARD WATER	% SLATS	TURBIDITY
1	8.11	0	7.98	784.22	300.47	100.00	733
2	6.54	1.82	8.04	784.27	302.59	78.23	845
3	4.81	3.34	8.02	784.27	301.92	59.02	132
4	3.36	4.99	8.08	784.15	304.13	40.24	3.9
5	1.6	6.43	8.12	784.05	305.78	19.93	3.5
6	0	8	8.02	791.34	299.34	0.00	120

TURBIDITY

SLAS + SLATS = 100 @ 300 PPM



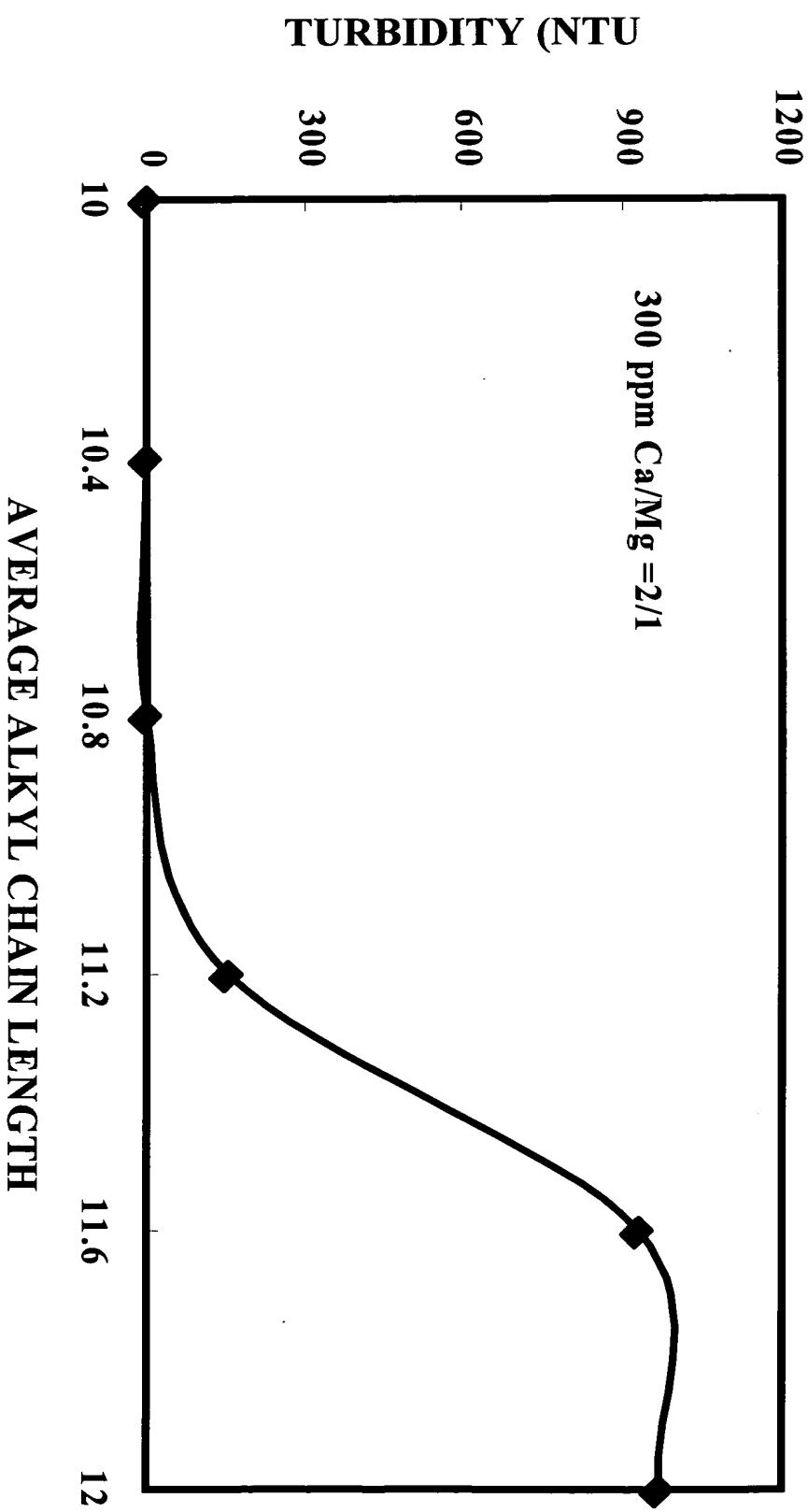


FIGURE 10. SLATS ALKYL CHAIN TURBIDITY AT 300 ppm HARD WATERS